OIPE

RAW SEQUENCE LISTING   DATE: 09/18/2002
PATENT APPLICATION: US/10/044,564   TIME: 09:49:55

Input Set : A:\Cura540.txt
Output Set: N:\CRF4\09182002\J044564.raw

```
   3  <110> APPLICANT: Mezes et al.
   5  <120> TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
   7  <130> FILE REFERENCE: 21402-240
   9  <140> CURRENT APPLICATION NUMBER: 10/044,564
C--> 10 <141> CURRENT FILING DATE: 2002-09-09
  12  <150> PRIOR APPLICATION NUMBER: 60/261,014
  13  <151> PRIOR FILING DATE: 2001-01-11
  15  <150> PRIOR APPLICATION NUMBER: 60/261,018
  16  <151> PRIOR FILING DATE: 2001-01-11
  18  <150> PRIOR APPLICATION NUMBER: 60/318,419
  19  <151> PRIOR FILING DATE: 2001-09-10
  21  <150> PRIOR APPLICATION NUMBER: 60/261,013
  22  <151> PRIOR FILING DATE: 2001-01-11
  24  <150> PRIOR APPLICATION NUMBER: 60/261,026
  25  <151> PRIOR FILING DATE: 2001-01-11
  27  <150> PRIOR APPLICATION NUMBER: 60/261,029
  29  <151> PRIOR FILING DATE: 2001-01-11
  30  <150> PRIOR APPLICATION NUMBER: 60/313,170
  31  <151> PRIOR FILING DATE: 2001-08-17
  33  <160> NUMBER OF SEQ ID NOS: 306
  35  <170> SOFTWARE: PatentIn Ver. 2.1
  37  <210> SEQ ID NO: 1
  38  <211> LENGTH: 1837
  39  <212> TYPE: DNA
  41  <213> ORGANISM: Homo sapiens
  42  <400> SEQUENCE: 1
  43  gcgcaggcc tgtccgctgc acaccagctt gttggcgtct tcgtcgccgc gctcgccccg 60
  44  ggctactcct gcgcgccaca atgagctccc gcatcgccag gggcgctcgcc ttagtcgtca 120
  45  cccttctcca cttgaccagg ctggcgtct ccacctgccc cgctgcctgc cactgcccc 180
  46  tggaggcgcc caagtgcgcg ccgggagtcg ggctggtccg ggacggctgc ggctgctgta 240
  47  aggtctgcgc caagcagctc aacgaggact gcagcaaaac gcagccctgc gaccacacca 300
  48  aggggctgga atgcaacttc ggcgccagct ccacgctct gaaggggatc tgcagagctc 360
  49  agtcagaggg cagacctgt gaatataact ccagaatcta ccaaaacggg gaaagtttcc 420
  50  agcccaactg taaacatcag tgcacatgta ttgatggcgc cgtgggctgc attcctctgt 480
  51  gtccccaaga actatctctc cccaacttgg gctgtcccaa cctcggctg gtcaaagtta 540
  52  ccgggcagtg ctgcgaggag tgggtctgtg acgaggatag tatcaaggac cccatggagg 600
  53  accaggacgg cctccttggt aaggagctgg gattcgatgc ctccgaggtg gagttgacga 660
  54  caaacaatga attgattgca gttggaaaag gcagctcact gaagcggatc cctgtttttg 720
  55  caatggagcc tgcatccga tacaacccctt tacaaggcca gaaatgtatt gttcaaacaa 780
  56  cttcatggtc ccagtgctca aagacctgtg gaactggtat ctccacacga gttaccaatg 840
  57  acaaccctga gtgccgcctt gtgaaagaaa ccggatttg tgaggtcgg cctgtggac 900
  58  agccagtgta cagccctcg aaaaagggca agaaatgcag caagacaag aaatccccg 960
  59  aaccagtcag gtttacttac gctggatgtt tgagtgtgaa gaaatacggg cccaagtact 1020
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/044,564

DATE: 09/18/2002
TIME: 09:43:55

Input Set : A:\Cura540.txt
Output Set: N:\CRF4\09182002\J044564.raw

```
60  gcggttcctg cgtggacggc cgatgctgca cgccccagct gaccaggact gtgaagatgc 1080
61  ggttccgctg cgaagatggg gagacatttt ccaagaacgt catgatgatc cagtcctgca 1140
62  aatgcaacta caactgcccg catgccaatg aagcagcgtt tcccttctac aggctgttca 1200
63  atgacattca caaatttagg gactaaatgc tacctgggtt tccaggccac acctagacaa 1260
64  acaagggaga agagtgtcag aatcagaatc atggagaaaa tgggcggggg tggtgtgggt 1320
65  gatgggactc attgtagaaa ggaagccttg ctcattcttg aggagcatta aggtatttcg 1380
66  aaactgccaa gggtgctggt gcggatggac actaatgcag ccacgattgg agaatacttt 1440
67  gcttcatagt attggagcac atgttactgc ttcattttgg agcttgtgga gttgatgact 1500
68  ttctgttttc tgtttgtaaa ttatttgcta agcatacttt ctctaggctt ttttcctttt 1560
69  ggggttctac agtcgtaaaa gagataataa gattagttgg acagtttaaa gctttttattc 1620
70  gtcctttgac aaaagtaaat gggagggcat tccatccctt cctgaagggg gacactccat 1680
71  gagtgtctgt gagaggcagc tatctgcact ctaaactgca aacagaaatc aggtgtttta 1740
72  agactgaatg ttttatttat caaaatgtag cttttgggga gggaggggaa atgtaatact 1800
73  ggaataattt gtaaatgatt ttaattttat attcagtgaa aagattttat ttatggaatt 1860
74  aaccatttaa taaagaaata tttacct                                     1887
```

77 <210> SEQ ID NO: 2
78 <211> LENGTH: 391
79 <212> TYPE: PRT
80 <213> ORGANISM: Homo sapiens
82 <400> SEQUENCE: 2

```
83  Met Ser Ser Arg Ile Ala Arg Ala Leu Ala Leu Val Val Thr Leu Leu
84   1               5                   10                  15
86  His Leu Thr Arg Leu Ala Leu Ser Thr Cys Pro Ala Ala Cys His Cys
87           20                  25                  30
89  Pro Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Val Arg Asp
90           35                  40                  45
92  Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys
93       50                  55                  60
95  Ser Lys Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe
96   65                  70                  75                  80
98  Gly Ala Ser Ser Thr Ala Leu Lys Gly Ile Cys Arg Ala Gln Ser Glu
99               85                  90                  95
101 Gly Arg Pro Cys Glu Tyr Asn Ser Arg Ile Tyr Gln Asn Gly Glu Ser
102          100                 105                 110
104 Phe Gln Pro Asn Cys Lys His Gln Cys Thr Cys Ile Asp Gly Ala Val
105          115                 120                 125
107 Gly Cys Ile Pro Leu Cys Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly
108          130                 135                 140
110 Cys Pro Asn Pro Arg Leu Val Lys Val Thr Gly Gln Cys Cys Glu Glu
111 145                 150                 155                 160
113 Trp Val Cys Asp Glu Asp Ser Ile Lys Asp Pro Met Glu Asp Gln Asp
114                 165                 170                 175
116 Gly Leu Leu Gly Lys Glu Leu Gly Phe Asp Ala Ser Glu Val Glu Leu
117                 180                 185                 190
119 Thr Arg Asn Asn Glu Leu Ile Ala Val Gly Lys Gly Ser Ser Leu Lys
120          195                 200                 205
122 Arg Ile Pro Val Phe Gly Met Glu Pro Arg Ile Arg Tyr Asn Pro Leu
123          210                 215                 220
125 Gln Gly Gln Lys Cys Ile Val Gln Thr Thr Ser Trp Ser Gln Cys Ser
```

RAW SEQUENCE LISTING   DATE: 09/18/2002
PATENT APPLICATION: US/10/044,564   TIME: 09:49:55

Input Set : A:\Cura540.txt
Output Set: N:\CRF4\09182002\J044564.raw

```
126 225                    230                 235                    240
128 Lys Thr Cys Gly Thr Gly Ile Ser Thr Arg Val Thr Asn Asp Asn Pro
129              245                 250                    255
131 Glu Cys Arg Leu Val Lys Glu Thr Arg Ile Cys Glu Val Arg Pro Cys
132              260                 265                    270
134 Gly Gln Pro Val Tyr Ser Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys
135          275                 280                    285
137 Thr Lys Lys Ser Pro Glu Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu
138      290                 295                    300
140 Ser Val Lys Lys Tyr Arg Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly
141 305                 310                 315                    320
143 Arg Cys Cys Thr Pro Gln Leu Thr Arg Thr Val Lys Met Arg Phe Arg
144              325                 330                    335
146 Cys Glu Asp Gly Glu Thr Phe Ser Lys Asn Val Met Met Ile Gln Ser
147          340                 345                    350
149 Cys Lys Cys Asn Tyr Asn Cys Pro His Ala Asn Glu Ala Ala Phe Pro
150          355                 360                    365
152 Phe Tyr Arg Leu Phe Asn Asp Ile His Lys Phe Arg Asp
153      370                 375                    380
156 <210> SEQ ID NO: 3
157 <211> LENGTH: 2114
158 <212> TYPE: DNA
159 <213> ORGANISM: Homo sapiens
161 <400> SEQUENCE: 3
162 aggaattccg gtggccggcc actcccgtct gctgtgacgc gcggacagag agctaccggt 60
163 ggaccccacgg tgcctccctc cctgggatct acacagacca tggccttgca acggctcgac 120
164 ccctgttggt cctgtgggga ccgccctggc agcctcctgt tcctgctctt cagcctcgga 180
165 tggtgcatc ccgcgaggac cctggctgga gagacaggga cggagtctgc ccccctgggg 240
166 ggagtcctga caacccccca taacatttcc agcctctccc ctcgccaact ccttggcttc 300
167 ccgtgtgcgg aggtgtccgg cctgagcacg gagcgtgtcc gggagctggc tgtggccttg 360
168 gcacagaaga atgtcaagct ctcaacagag cagctgcgct gtctggctca ccggctctct 420
169 gagccccccg aggacctgga cgccctccca ttggacctgc tgctattcct caaccagat 480
170 gcgttctcgg ggccccaggc ctgcaccgt ttcttctccc gcatcacgaa ggccaatgtg 540
171 gacctgctcc cgaggggggc tcccgagcga cagcggctgc tgcctgcggc tctggcctgc 600
172 tggggtgtgc ggggtgtctct gctgagcgag gctgatgtgc gggctctggg aggcctggct 660
173 tgcgacctgc ctgggcgctt tgtggccgag tcggccgaag tgctgctacc cggcctggtg 720
174 agctgcccgg gaccctggga ccaggaccag caggaggcag ccaggcggc tctgcaggc 780
175 ggggaccc ctacggccc ccgtcgaca tggtctgtct ccacgatgga cgctctgcgg 840
176 ggcctgctgc ccgtgctggg ccagcccatc atccgcagca tccgcaggg catcgtggc 900
177 ggtggcggc aacgctcctc tgggaccca tcctggcggc agcctgaacg gaccatcctc 960
178 cggccgcggt tcggcgggga agtggagaag acagcctgtc cttcaggcaa gaaggccggc 1020
179 gagatagacg agagcctcat cttctacaag aagtgggagc tggaagcctg cgtggatgcg 1080
180 gccctgctgg ccaccagat ggacgcgtg aacgccatcc cctcacccta cgagcagctg 1140
181 gacgtcctaa agcataaact ggatgagctc taccacaag gttacccga gtctgtgatc 1200
182 cagcacctgg gctacctctt cctcaagatg agccctgagg acattcgcaa gtggaatgtg 1260
183 acgtccctgg agaccctgaa ggctttgctt gaagtcgaca aagggcacga aatgagtcct 1320
184 caggctcctc ggcggccct ccacaggtg gccacctga tgaccgctt tgtgaaggga 1380
185 aggggccagc tagacaaaga caccctagac acctgaccg ccttctaccc tgggtacctg 1440
186 tgctcctca gccccgagga gctgagctcc gtgcccccca gcagcatctc ggcggtcagg 1500
```

RAW SEQUENCE LISTING   DATE: 09/18/2002
PATENT APPLICATION: US/10/044,564   TIME: 09:49:55

Input Set : A:\Cura540.txt
Output Set: N:\CRF4\09182002\J044564.raw

```
187 cccaggacc tggacacgtg tgacccaagg cagctggacg tcctctatcc caaggccggc 1560
188 cttgctttcc agaacatgaa cgggtccgaa tacttcgtga agatccagtc cttcctgggt 1620
189 ggggcccca cggaggattt gaaggcgctc agtcagcaga atgtgagcat ggacttggcc 1680
190 acgttcatga agctgcggac ggatgcggtg ctgccgttga ctgtggctga ggtgcagaaa 1740
191 cttctgggac cccacgtgga gggcctgaag gcggaggagc ggcacccgcc ggtgcggcac 1800
192 tggatcctac ggcagcggca ggacgacctg gacacgctgg ggctggggct acagggcggc 1860
193 atcccaacg gctacctggt cctagacctc agcgtgcaag agacctctc ggggacgccc 1920
194 tgcctcctag gacctggacc tgttctcacc gtcctggcac tgctcctagc ctccaccctg 1980
195 gcctgaggc cccactccct tgctggcccc agcctgctg gggatcccg cctggccagg 2040
196 agcaggcacg ggtgatcccc gttccaccc aagagaactc gcgctcagta aacgggaaca 2100
197 tgccccctgc agac                                            2114
```

20 <210> SEQ ID NO: 4
201 <211> LENGTH: 628
202 <212> TYPE: PRT
203 <213> ORGANISM: Homo sapiens
205 <400> SEQUENCE: 4
206 Met Ala Leu Gln Arg Leu Asp Pro Cys Trp Ser Cys Gly Asp Arg Pro
207 1   5   10   15
209 Gly Ser Leu Leu Phe Leu Leu Phe Ser Leu Gly Trp Val His Pro Ala
210   20   25   30
212 Arg Thr Leu Ala Gly Glu Thr Gly Thr Glu Ser Ala Pro Leu Gly Gly
213   35   40   45
215 Val Leu Thr Thr Pro His Asn Ile Ser Ser Leu Ser Pro Arg Gln Leu
216   50   55   60
218 Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu Arg Val
219 65   70   75   80
221 Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu Ser Thr
222   85   90   95
224 Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro Glu Asp
225   100   105   110
227 Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro Asp Ala
228   115   120   125
230 Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile Thr Lys
231   130   135   140
233 Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln Arg Leu
234 145   150   155   161
236 Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu Leu Ser
237   165   170   175
239 Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu Pro Gly
240   180   185   190
242 Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu Val Ser
243   195   200   205
245 Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg Ala Ala
246   210   215   220
248 Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp Ser Val
249 225   230   235   240
251 Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly Gln Pro
252   245   250   255
254 Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg Gln Arg

file: C:\CRF4\Outhold\VsrJ044564.htm   9 18 02

RAW SEQUENCE LISTING   DATE: 09/18/2002
PATENT APPLICATION: US/10/044,564   TIME: 09:49:55

Input Set : A:\Cura540.txt
Output Set: N:\CRF4\09182002\J044564.raw

```
255                260                265                270
257 Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile Leu Arg
258        275                280                285
260 Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser Gly Lys
261        290                295                300
263 Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys Trp Glu
264 305                310                315                320
266 Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met Asp Arg
267                325                330                335
269 Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu Lys His
270                340                345                350
272 Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val Ile Gln
273        355                360                365
275 His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile Arg Lys
276        370                375                380
278 Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu Val Asp
279 385                390                395                400
281 Lys Gly His Glu Met Ser Pro Gln Ala Pro Arg Arg Pro Leu Pro Gln
282                405                410                415
284 Val Ala Thr Leu Ile Asp Arg Phe Val Lys Gly Arg Gly Gln Leu Asp
285        420                425                430
287 Lys Asp Thr Leu Asp Thr Leu Thr Ala Phe Tyr Pro Gly Tyr Leu Cys
288        435                440                445
290 Ser Leu Ser Pro Glu Glu Leu Ser Ser Val Pro Pro Ser Ser Ile Trp
291        450                455                460
293 Ala Val Arg Pro Gln Asp Leu Asp Thr Cys Asp Pro Arg Gln Leu Asp
294 465                470                475                480
296 Val Leu Tyr Pro Lys Ala Arg Leu Ala Phe Gln Asn Met Asn Gly Ser
297                485                490                495
299 Glu Tyr Phe Val Lys Ile Gln Ser Phe Leu Gly Gly Ala Pro Thr Glu
300                500                505                510
302 Asp Leu Lys Ala Leu Ser Gln Gln Asn Val Ser Met Asp Leu Ala Thr
303        515                520                525
305 Phe Met Lys Leu Arg Thr Asp Ala Val Leu Pro Leu Thr Val Ala Glu
306        530                535                540
308 Val Gln Lys Leu Leu Gly Pro His Val Glu Gly Leu Lys Ala Glu Glu
309 545                550                555                560
311 Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln Asp Asp
312                565                570                575
314 Leu Asp Thr Leu Gly Leu Gly Leu Gln Gly Gly Ile Pro Asn Gly Tyr
315        580                585                590
317 Leu Val Leu Asp Leu Ser Val Gln Glu Thr Leu Ser Gly Thr Pro Cys
318        595                600                605
320 Leu Leu Gly Pro Gly Pro Val Leu Thr Val Leu Ala Leu Leu Leu Ala
321        610                615                620
323 Ser Thr Leu Ala
324 625
327 <210> SEQ ID NO: 5
328 <211> LENGTH: 852
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 09/18/2002
PATENT APPLICATION: US/10/044,564   TIME: 09:49:56

Input Set : A:\Cura540.txt
Output Set: N:\CRF4\09182002\J044564.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:11; N Pos. 599
Seq#:12; Xaa Pos. 184
Seq#:21; N Pos. 1,3
Seq#:80; Xaa Pos. 1
Seq#:90; Xaa Pos. 8,235
Seq#:99; Xaa Pos. 251
Seq#:112; Xaa Pos. 160,161,162,163